San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

DEC 0 4 2014

Mr. Mac McCollough
Pacific Southwest Container
4530 Leckton Road
Modesto, CA 95353

Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod)
District Facility # N-3606
Project # N-1142841

Dear Mr. McCollough:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The daily throughput for your corrugator would be increased from 5 million to 9 million square feet/day, with no increase to annual limits.

After addressing all comments made during the 45-day EPA comment period, the District intends to issue the Authority to Construct with a Certificate of Conformity. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Increase Daily Process Rate for Corrugated Board Manufacturing Operation

Facility Name:	Pacific Southwest Container	Date:	November 23, 2014
Mailing Address:	4530 Leckron Road Modesto, CA 95353	Engineer:	G. Heinen
		Lead Engineer:	Brian Clements
Contact Person:	Mac McCullough		
Telephone:	(209) 526-0444		
Application #s:	N-3606-31-2		
Project #:	N-1142841		
Deemed Complete:	October 1, 2014		

I. Proposal

Pacific Southwest Container prints and manufactures containers and packing materials. The facility has requested an Authority to Construct (ATC) permit to increase the daily process rate from 5 million to 9 million square feet (sf) of corrugated board for their corrugated board manufacturing operation (permit N-3606-31-0). The daily increase would be achieved by adding an additional shift per day, not due an increase in hourly production nor addition of new equipment. No changes are proposed to the existing annual facility-wide VOC Specific Limiting Condition (SLC) or the annual VOC limit for this permit unit.

Pacific Southwest Container has received their Title V Permit on January 31, 2005. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct permit. Pacific Southwest Container must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emission Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4653	Adhesives and Sealants (9/16/10)
Rule 4801	Sulfur Compounds (12/17/92)

CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 4530 Leckron Road, Modesto, California. The District has verified that the equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Pacific Southwest Container manufactures corrugated cardboard and corrugated cardboard boxes. The facility first produces corrugated cardboard and then cuts the cardboard into box blanks with die-cutters and applies graphic with lithographic/flexographic printing presses.

A boiler (permit N-3606-30-0) provides steam to the corrugator system to soften the raw containerboard (paper) for the cardboard manufacturing process. The boiler was previously permitted for 24 hr/day and 365 days/year, so no change to that permit are required to support the proposed daily increase in containerboard throughput.

The corrugator system (permit N-3606-31-0) consists of a set of in-line machines designed to adhere together multiple sheets of paper to form single or double wall corrugated cardboard. Reels of paper are fed into the corrugator, where the paper is conditioned with heat and steam, and fed between large corrugating rollers that give the paper its fluted shape. Starch is applied to the tips of the flutes on one side and the inner liner is glued to the fluting. The corrugated fluting medium with one liner attached to it is called single face web and travels along the machine toward double backer where the single face web meets the outer line and forms corrugated board. The corrugated board is then cut and stacked.

The corrugator is capable of producing double wall corrugated cardboard. Double layer corrugated cardboard is made up of two corrugated layers separated by a center flat layer all between two outer flat layers.

The adhesives for the corrugator will be prepared on-site from various ingredients. A typical batch consists of water, starch, a liquid resin, borax, and sodium hydroxide. These ingredients are loaded into a mixer in appropriate proportions along with the starch, which is mechanically conveyed from the starch silo to the mixer. Once the mixing process is complete, the adhesive will be pumped into the holding tanks, to be used in the corrugator system.

The facility may operate 24 hours per day, 365 days per year.

V. Equipment Listing

Pre-Project Equipment Description

Current Permit #	Pre-Project Equipment Description
N-3606-31-1	CORRUGATED BOARD MANUFACTURING OPERATION WITH A FOSBER SMART 400-98' CORRUGATOR SYSTEM AND A STARCH CONVEYING AND MIXING SYSTEM

Proposed Modification

ATC Permit #	ATC Equipment Description
N-3606-31-2	MODIFICATION OF CORRUGATED BOARD MANUFACTURING OPERATION WITH A FOSBER SMART 400-98' CORRUGATOR SYSTEM AND A STARCH CONVEYING AND MIXING SYSTEM: INCREASE THE DAILY PROCESS LIMIT FROM 5 MILLION TO 9 MILLION SF OF CORRUGATED BOARD

Post-Project Equipment Description

Proposed Permit #	Post-Project Equipment Description
N-3606-31-2	CORRUGATED BOARD MANUFACTURING OPERATION WITH A FOSBER SMART 400-98' CORRUGATOR SYSTEM AND A STARCH CONVEYING AND MIXING SYSTEM

VI. Emission Control Technology Evaluation

The associated emission units generate VOC emissions from the application of starch-based adhesives and the heating of the raw containerboard (paper) during the manufacturing process. The applicant uses low-VOC starch-based adhesives to minimize VOC emissions.

VII. General Calculations

A. Assumptions

- Only VOC emissions are associated with this project.
- The current permit is limited by condition to 9,699 lb VOC/year, based on a 12-month rolling period. No change is proposed to the hourly or annual production rates. Only the daily production rate would be increased by operating more hours/day.

Containerboard	sf/hour	sf/day	sf/year
Pre-Project Limit	167,000	5,000,000	1,040,000,000
Post-Project Limit	167,000	9,000,000	1,040,000,000

- Adhesive use is proportional to the amount of containerboard processed. The daily corrugated board production rate will be increase by a factor of 1.8 (= 9 / 5 million sf/day). Therefore, the daily adhesive usage will be increased by the same factor. The following table indicates the pre-project use information based on the same limits which were used to calculate the emissions in project N1130130. The proposed post-project daily limits are those limits increased by a factor of 1.8. No changes are proposed to the annual limits so the operation will at the existing annual VOC limit.

Adhesive Components Containing VOC	Pre-Project		Post-Project	
	Daily Use (gal/day)	Annual Use (gal/year)	Daily Use (gal/day)	Annual Use (gal/year)
Maximum Velocity SP29-962A Performance Enhancer Resin	183	43,900	329	43,900
Aquence CG 9734 HP Ultraguard	211	50,634	380	50,634

B. Emission Factors

- The permit currently lists an emission factor of EF_{VOC} = 8 lb/10^6 sf of product.

  This emission factor accounts for the VOC emissions created from the heating of the raw containerboard. This emission factor originates from project N-1031906, based on a report titled "Weyerhaeuser Company Containerboard Packaging Summary Report for Corrugator Total Volatile Organic Compound (VOC) Emissions Studies", prepared by Environmental Health and Safety (EH&S) Technical Systems, Weyerhaeuser Company, Federal Way, WA, dated July 22, 2003. (See Project N-1031906 for a copy of the report.) The proposed emission factor is the highest worst case emission rate from the referenced report.

- The permit currently lists an emission factor of $EF_{adhesives}$ = 0.015 lb/gal (less water and exempt compounds)

  In Project N-1031906, the emission factor for the adhesive was calculated as the sum of the components and was calculated as shown in the following table:

Adhesive Components	VOC EF (lb/gal, less water and exempts)
Maximum Velocity SP29-962A Performance Enhancer Resin	0.008
Aquence CG 9734 HP Ultraguard	0.0203
Total for Mixed Adhesive	**0.015**

Although the containerboard emission factor may already account for VOC emissions from the containerboard heating, the adhesive VOC emissions were assessed separately in the original permitting of this operation and are included in the current annual VOC limit.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The only emissions from the corrugator are VOC and originate from the raw containerboard material steaming and the adhesive. Emissions were calculated using the following equations:

Daily PE = EF x Daily Limit
Annual PE = EF x Annual Limit

Pre-project Emission Calculations					
Source	**EF (lb/mil sf)**	**Daily Limit (mil sf/day)**	**Annual Limit (mil sf/year)**	**Daily PE1 (lb/day)**	**Annual PE1 (lb/year)**
Containerboard	8	5	1,040	40.0	8,320
	EF (lb/gal)	**Daily Limit (gal/day)**	**Annual Limit (gal/yr)**	**Daily PE1 (lb/day)**	**Annual PE1 (lb/year)**
SP29-962A Resin	0.008	183	43,900	1.5	351
CG 9734 HP Ultraguard	0.0203	211	50,634	4.3	1,028
Totals				45.8	9,699

2. Post-Project Potential to Emit (PE2)

The facility has proposed to increase the daily throughput limit to 9 million sf of containerboard and a proportional increase in adhesive components. Resulting post-project emissions are shown in the following table:

Post-project Emission Calculations					
Source	**EF (lb/mil sf)**	**Daily Limit (mil sf/day)**	**Annual Limit (mil sf/year)**	**Daily PE2 (lb/day)**	**Annual PE2 (lb/year)**
Containerboard	8	9	1,040	72.0	8,320
	EF (lb/gal)	**Daily Limit (gal/day)**	**Annual Limit (gal/yr)**	**Daily PE2 (lb/day)**	**Annual PE2 (lb/year)**
SP29-962A Resin	0.008	329	43,900	2.6	351
CG 9734 HP Ultraguard	0.0203	380	50,634	7.7	1,028
Totals				82.3	9,699

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. From Project N-114169, the SSPE1 is as shown in the following table:

SSPE1 (lb/yr)					
Permit Unit	**NOx**	**CO**	**VOC**	**SOx**	**PM10**
N-3606-3-6	0	0		0	0
N-3606-4-5	0	0		0	183
N-3606-9-7	0	0		0	0
N-3606-11-8	0	0		0	0
N-3606-13-6	0	0		0	0
N-3606-14-6	0	0		0	0
N-3606-15-6	0	0		0	0
N-3606-16-6	0	0		0	0
N-3606-19-4	0	0		0	0
N-3606-21-4	0	0	73,403	0	0
N-3606-23-5	0	0		0	0
N-3606-24-4	0	0		0	0
N-2306-25-2	0	0		0	0
N-2306-26-5	0	0		0	0
N-3606-27-3	0	0		0	0
N-3606-29-0	0	0		0	0
N-3606-30-1	1,430	6,612		509	1,358
N-3606-31-0	0	0		0	0
ATC N-3606-32-0	0	0		0	0
SSPE1	1,430	6,612	73,403	509	1,541

4. Post-Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the Post-Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/yr)					
Permit Unit	**NOx**	**CO**	**VOC**	**SOx**	**PM10**
N-3606-3-6	0	0		0	0
N-3606-4-5	0	0		0	183
N-3606-9-7	0	0		0	0
N-3606-11-8	0	0		0	0
N-3606-13-6	0	0		0	0
N-3606-14-6	0	0		0	0
N-3606-15-6	0	0		0	0
N-3606-16-6	0	0		0	0
N-3606-19-4	0	0		0	0
N-3606-21-4	0	0	73,403	0	0
N-3606-23-5	0	0		0	0
N-3606-24-4	0	0		0	0
N-2306-25-2	0	0		0	0
N-2306-26-5	0	0		0	0
N-3606-27-3	0	0		0	0
N-3606-29-0	0	0		0	0
N-3606-30-1	1,430	6,612		509	1,358
ATC N-3606-31-2	0	0		0	0
ATC N-3606-32-0	0	0		0	0
SSPE2	1,430	6,612	73,403	509	1,541

5. Major Source Determination

Rule 2201 Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)					
	NO_X	SO_X	PM10	CO	VOC
SSPE1	1,430	509	1,541	6,612	73,403
SSPE2	1.430	509	1,541	6,612	73,403
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	Yes

As seen in the table above, the facility is an existing Major Source for VOC and will remain a Major Source for VOC.

Rule 2410 Major Source Determination

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Estimated Facility PE before Project Increase	0.7	36.7	0.25	3.3	0.8	0.8
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, the facility is not an existing major source for PSD for at least one pollutant. Therefore the facility is not an existing major source for PSD.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project, to calculate the QNEC and if applicable, to determine the amount of offsets required.

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

Otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Rule 2201

a. BE PM_{10}

Unit Located at a Non-Major Source
As shown in Section VII.C.5 above, the facility is not a major source for PM_{10} emissions.

Therefore BE = PE1.

b. BE VOC

Clean Emissions Unit, Located at a Major Source
Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

Permit	Description	BACT Guideline	Achieved-in-Practice BACT Requirement	Permit Limit	Clean Emission Unit
N-3306-3-7 N-3306-11-9 N-3306-19-5 N-3306-21-5 N-3306-25-3 N-3306-27-4 N-3306-31-1	Corrugated Box/Board Manufacturing	4.9.12	Adhesive with 0.044 lb VOC/gal or less	VOC = 0.021 lb/gal VOC = 0.021 lb/gal VOC = 0.021 lb/gal VOC = 0.021 lb/gal VOC = 0.021 lb/gal VOC = 0.021 lb/gal VOC = 0.015 lb/gal	Yes Yes Yes Yes Yes Yes Yes
N-3306-4-6	Corrugated Board Manufacturing And Corrugated Board Laminating	4.9.12 4.11.3	Adhesive with 0.044 lb VOC/gal or less Adhesive with 0.021 lb VOC/gal or less	VOC = 0.021 lb/gal VOC = 0.021 lb/gal	Yes
N-3306-13-7 N-3306-14-7 N-3306-15-7	Flexographic Printer (low-end graphics) And Gluer	4.7.15 4.9.12	Ink with 0.3 lb VOC/gal or less Adhesive with 0.44 lb VOC/gal or less	VOC = 0.3 lb/gal VOC = 0.021 lb/gal	Yes Yes Yes Yes

Continued next page

Permit	Description	BACT Guideline	Achieved-in-Practice BACT Requirement	Permit Limit	Clean Emission Unit
N-3306-9-8 N-3306-16-7 N-3306-23-6 N-3306-26-6	Offset lithographic printing operations	4.7.2	Inks: <5% by wt or 30% by weight for high end graphics Fountain Solution: <5% by vol for coldest offset lithographic and sheet-fed lithographic greater than 11 x 17 inches Or 8% by volume for high end graphics	Inks with < 5% VOC by volume Fountain solutions with < 5% VOC by volume for high-end graphics and < 5% by volume for non-high-end graphics	Yes Yes Yes Yes
N-3306-24-5		4.7.2	Inks: <5% by wt or 30% by weight for high end graphics Fountain Solution: <5% by vol for coldest offset lithographic and sheet-fed lithographic greater than 11 x 17 inches Or 8% by volume for high end graphics	Inks with < 5% VOC by volume < 6% by volume for high-end graphics and <5% by volume for non-high-end graphics	Yes
N-3306-29-1	N/A. This unit does not emit VOC.				

All of the units included in the SLC for VOC are Clean Emission Units for VOC; therefore, the Baseline Emissions for VOC are equal to the SLC.

BE_{VOC} = 73,403 lb/yr

7. Major Modification

SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

NOx, SOx, PM10

Since this facility is not a major source for NOx, SOx, or PM10, this project does not constitute an SB 288 Major Modification for NOx, SOx, or PM10.

VOC

Since this facility is a major source for VOC, the PE2 for the emission units within this project is compared to the SB 288 Major Modification Threshold in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Threshold (Existing Major Source)			
Pollutant	Project PE (lb/year)	SB 288 Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	9,699	50,000	No

As shown in section VII.C.1 of this document, the potential to emit of VOC is less than its SB-288 Major Modification threshold. Therefore, this permitting action is not an SB-288 Major Modification.

Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination.

NOx, SOx, PM10

Since this facility is not a major source for NOx, SOx, or PM10, this project does not constitute a Federal Major Modification for NOx, SOx, or PM10.

VOC

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination. The second step is to determine if the project results in a significant net emission increase.

For projects involving NOx and VOC emission increases (those pollutants for which the District is in extreme non-attainment), only step 1 of the analysis is performed (as required in the Federal Clean Air Act section 182 (e) (2)). Step 2 of the analysis shall not be performed.

Notwithstanding the above, a facility with a project that has an emission increase in NOx or VOCs can elect to offset the emission increase at a ratio of 1.3:1 using emission reductions that occurred at the same stationary source. Such emission reductions must be surplus of all current federally enforceable requirements. Such projects shall not constitute

a Federal Major Modification. Offsets provided pursuant to this provision may be used to satisfy offset requirements of Rule 2201.

Step 1

Per section 3.18 of Rule 2201 and the District's draft policy titled "*Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications*", a permitting action is a Federal Major Modification if the Net Emission Increase (NEI) for the new and modified units involved in the project exceed the thresholds shown on the following table. The equipment currently under consideration will emit only VOC, therefore, only VOC will be addressed.

Pollutant	Threshold (lb/yr)
VOC	0

For new emissions units,

NEI = PAE – BAE

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions

Per 40 CFR Part 51.165(a)(1)(vii)(A): "*A new emissions unit is any emissions unit which is (or will be) newly constructed and which has existed for less than 2 years from the date such emissions unit first operated.*" The ATC for this unit was implemented on 8/29/13 and therefore is a new emissions unit.

PAE: If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit. For this project, a detailed PAE was not provided so PAE = PE2 = 9,699 lb/year.

BAE: Per 40 CFR Part 51.165(a)(1)(xxxv)(C): "*For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.*" Therefore, since this is not the initial construction of the new emissions unit,

BAE = PE1 = 9,699 lb/year.

Therefore:

NEI = 9,699 lb/yr – 9,699 lb/yr = 0 lb/yr

As can be seen, the NEI of VOC does not exceed its Federal Major Modification threshold. Therefore, this permitting action is not a Federal Major Modification.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10
- Lead
- Fluorides
- Sulfuric acid mist
- Hydrogen sulfide (H2S)
- Total reduced sulfur (inlcuding H2S)
- Reduced sulfur compounds
- Municipal waste combustor organics (measured as total tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans): 3.2×10^{-6} megagrams per year (3.5×10^{-6} tons per year)
- Municipal waste combustor metals (measured as particulate matter): 14 megagrams per year (15 tons per year)
- Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride): 36 megagrams per year (40 tons per year)
- Municipal solid waste landfills emissions (measured as nonmethane organic compounds): 45 megagrams per year (50 tons per year)

VOC, which is the only pollutant emitted by the project equipment, is not listed, so the project is not a PSD Major Modification and no further discussion is needed.

10. Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database.

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post-Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
VOC	18,351	18,351	0

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in a Major Modification.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As discussed in Section I above, no new emissions units will be added; therefore BACT is not triggered for this criterion.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered for this criterion.

c. Modification of emissions units – AIPE > 2 lb/day

AIPE = PE2 – HAPE

Where,
AIPE = Adjusted Increase in Permitted Emissions, (lb/day)
PE2 = Post-Project Potential to Emit, (lb/day)
HAPE = Historically Adjusted Potential to Emit, (lb/day)

HAPE = PE1 x (EF2/EF1)

Where,
PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1
EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

AIPE = PE2 – (PE1 * (EF2 / EF1))

There are no emission factor changes in this project; therefore, EF2 / EF1 = 1.

Adjusted Increase in Permitted Emissions				
Permit Unit	PE2 (lb-VOC/day)	PE1 (lb-VOC/day)	AIPE (lb/day)	BACT Triggered?
N-3606-31-2	82.3	45.8	36.5	Yes

As detailed above, the AIPE > 2 VOC lb/day with this project; therefore public noticing is required for AIPE purposes.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.7 and VII.C.8 above, this project does not constitute either a SB 288 or Federal Major Modification; therefore BACT is not triggered by that criterion.

2. BACT Guideline

BACT Guideline 4.9.12, applies to Corrugated Box Gluers (See Appendix D)

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see Appendix D), BACT has been satisfied with the following:

VOC: Steam conditioning of paper – 8 lb-VOC/10^6 sf and
Adhesives – 0.015 lb-VOC/gal (less water and exempt compounds).

The applicant is currently meeting these limits and no changes are proposed to their materials; therefore BACT is satisfied for this project. The following conditions will appear on the permit:

- VOC emissions from the corrugator shall not exceed 8.0 pounds per million square feet of corrugated boards produced. [District Rule 2201]

- VOC content of the adhesives used shall not exceed 0.015 lb/gal (less water and exempt compounds). [District Rule 2201]

B. Offsets

1. Offset Applicability

Pursuant to Rule 2201, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post-Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Offset Determination (lb/year)					
	NO_X	SO_X	PM10	CO	VOC
SSPE2	1,430	509	1,541	6,612	73,403
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	Yes

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset threshold for VOC; therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

PE2 = Post-Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE)

Pursuant to District Policy APR 1420, *NSR Calculations for Units with Specific Limiting Conditions (3/12/07)*, if the SLC is for a pollutant exceeding the Major Source threshold and any single unit under the SLC is not a Highly-Utilized, Fully-Offset, or Clean Emissions Units, then the sum of the actual emissions from all units in SLC will be used to determine the pre-project BE.

As established in this document, all VOC emitting units at this facility meet the District's determination of achieved-in-practice BACT (and are thus Clean Emission Units), therefore the pre-project BE emissions are equal to the pre-project PE emissions ($BE_{SLC} = PE1_{SLC}$).

Based on the information above, the emissions increase to be offset for this project should be calculated as follows:

Emissions Increase (lb/year) = $PE2_{SLC} - BE_{SLC}$

Where: $PE2_{SLC}$ = The post-project SLC selected by the facility.

In this project, $PE2_{SLC} = PE1_{SLC}$.

BE_{SLC} = 73,303 lb-VOC/year

Therefore,

Emissions Increase (lb/year) = $PE2_{SLC} - BE_{SLC}$
= 73,303 lb-VOC/year – 73,303 lb-VOC/year
= 0 lb VOC/year

As demonstrated in the calculation above, the amount of offsets is zero. Therefore, offsets will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for New Major Source purposes.

As demonstrated in VII.C.7 and VII.C.8, this project does not constitute either an SB 288 or a Federal Major Modification; therefore, public noticing is not required for Major Source purposes.

b. PE > 100 lb/day

Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant; therefore, public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO_X	1,430	1,430	20,000 lb/year	No
SO_X	509	509	54,750 lb/year	No
PM10	1,541	1,541	29,200 lb/year	No
CO	6,612	6,612	200,000 lb/year	No
VOC	73,403	73,403	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post-Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold (lb/year)	Public Notice Required?
NO_x	1,430	1,430	0	20,000	No
SO_x	509	509	0	20,000	No
PM10	1,541	1,541	0	20,000	No
CO	6,612	6,612	0	20,000	No
VOC	73,403	73,403	0	20,000	No

As detailed above, there were no SSIPE thresholds surpassed with this project; therefore public noticing is not required for SSIPE purposes.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The following conditions will be placed on the permit to enforce the requirement of this section.

- No more than 9 million square feet of corrugated board shall be processed in any one day. [District Rule 2201] Y
- VOC emissions from the corrugator shall not exceed 8 pounds per million square feet of corrugated boards produced. [District Rule 2201] Y
- VOC content of the adhesives used shall not exceed 0.015 lb/gal (less water and exempt compounds). [District Rule 2201] Y
- VOC emissions from this permit unit shall not exceed 9,699 pounds in any 12 consecutive month rolling period. [District Rule 2201]
- Facility-wide VOC emissions shall not exceed 73,403 lb/year on a rolling 12-month basis.

E. Compliance Assurance

1. Source Testing

The VOC emitted are not amenable to stack source testing; therefore, no source testing is required to demonstrate compliance with the DEL for VOC. Compliance will be demonstrated by usage records and documentation of the VOC content of the inks and materials used (see Recordkeeping below).

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions will appear on the permit:

- The permittee shall keep daily records of the date and total amount of the corrugated boards produced in million square feet. [District Rule 2201] Y
- The permittee shall maintain monthly records of the name, type, VOC content (in lb/gal, less water and exempt compounds), and the amount of all adhesives, primers, solvents, and cleaning materials used in this operation. [District Rule 2201] Y
- The permittee shall keep monthly records of the total VOC emissions from this permit unit. [District Rule 2201] Y

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

Rule 2410 Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

As shown in Section VII. C. 9. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit. In accordance with Rule 2520, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
   a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
   b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. The facility may operate under the ATC upon submittal of the Title V administrative amendment application.

The following federally enforceable conditions will be placed on each of these ATC permits to ensure compliance with this rule:

- {1830} This Authority to Construct serves as a written Certificate of Conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2520] Y

- {1831} Prior to operating with the modifications authorized by this Authority to Construct, the facility shall submit an application for an administrative amendment to its Title V permit, in accordance with District Rule 2520, Section 11.4.2. [District Rule 2520] Y

Compliance with this rule is expected.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60.

There are no subparts of 40 CFR Part 60 which are applicable to corrugated paper box operations.

40 CFR Part 64 – Compliance Assurance Monitoring (CAM)

Except for back-up utility units that are exempt under paragraph (b)(2), Section 64.2 states that the requirements of this subpart shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a Part 70 or 71 permit if the unit satisfies all of the following criteria:

1) the unit must have an emission limit for the pollutant;
2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, catalytic oxidizers, etc; and
3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

The permit in this project contains emission limits for VOC emissions. However, the equipment is not equipped with an add-on control device. Therefore, the CAM requirements of 40 CFR 64 are not applicable for this project.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to corrugated paper box manufacturing.

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). Therefore, to ensure compliance with this rule, the following condition will ensure compliance with this rule:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of this equipment, provided the it is well maintained. Therefore, to ensure compliance with this rule, the following condition will ensure compliance with this rule:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix E), the total facility prioritization score including this project was not performed since there are no Hazardous Air Pollutants (HAPs) associated with this project. Therefore, a health risk assessment was not required and the project is approved without Toxic Best Available Control Technology (T-BACT).

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

Visible emissions are not expected as a result of this operation, provided the equipment is well maintained. Therefore, to ensure compliance with this rule, the following condition will ensure compliance with this rule:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4202 Particulate Matter Emission Rate

This rule limits the allowable PM emission rate based on the equipment process weight rate. Section 3.1 defines the process weight as "the total weight of all materials introduced into any specific process, which process may cause any discharge into the atmosphere."

Particulate emissions are not expected as a result of this operation, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

Rule 4607 Graphic Arts

The purpose of this rule is to limit VOC emissions from graphic arts printing operations. This rule is applicable to any graphic arts printing operation, to any paper or fabric coating operation, to the organic solvent cleaning, and to the storage and disposal of solvents and waste solvent materials associated with such operations as defined in Section 3.0 of this rule.

Rule 4607 defines graphic arts printing operations as "those operations employing gravure, flexography, letterpress, lithography, screen, or any coating or laminating process to produce published products and packages. Organic solvent cleaning operations performed in order to produce published products and packages are considered to be part of graphic arts printing operations."

Since the unit in this project does not employ a lithographic or flexographic method of printing, the unit is not subject to this rule.

Rule 4653 Adhesives and Sealants

This rule applies to any person who supplies, sells, offers for sale, or applies any adhesive product within the District.

Per Section 4.1.2, units that apply adhesives with VOC contents of less than 20 grams per liter (0.167 lb/gallon) are exempt from this rule.

For this operation, the facility uses adhesives with VOC contents of less than 0.015 lb/gal (less water and exempt compounds).

Therefore, the equipment in this project is exempt from the requirements of this rule. As discussed earlier, the following condition will be included on the permit to ensure compliance with this criterion:

- VOC content of the adhesives used shall not exceed 0.015 lb/gal (less water and exempt compounds). [District Rule 2201]

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATC N-3606-31-2 subject to the permit conditions on the attached draft ATC in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Unit	Fee Schedule	Fee Description	Annual Fee
N-3606-31-2	3020-01-F	481 hp	$607

Appendices

A: Draft Authority to Construct
B: Current Permit to Operate
C: Title V Modification – Compliance Certification Form
D: BACT Guideline and BACT Analysis
E: Health Risk Assessment Analysis

Appendix A

Draft Authority to Construct

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-3606-31-2

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PACIFIC SOUTHWEST CONTAINER
MAILING ADDRESS: ATTN: ACCOUNTS PAYABLE
4530 LECKRON RD
MODESTO, CA 95357

LOCATION: 4530 LECKRON RD
MODESTO, CA 95357

EQUIPMENT DESCRIPTION:
MODIFICATION OF CORRUGATED BOARD MANUFACTURING OPERATION WITH A FOSBER SMART 400-98' CORRUGATOR SYSTEM AND A STARCH CONVEYING AND MIXING SYSTEM: INCREASE THE DAILY PROCESS LIMIT FROM 5 MILLION TO 9 MILLION SF OF CORRUGATED BOARD

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
6. VOC emissions from the corrugator shall not exceed 8.0 pounds per million square feet of corrugated boards produced. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
N-3606-31-2 : Nov 26 2014 2:32PM -- HEINENG : Joint Inspection NOT Required

7. No more than 9 million square feet of corrugated board shall be processed in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC emissions from this permit unit shall not exceed 9,699 pounds on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Facility-wide VOC emissions shall not exceed 73,403 lb/year on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC content of the adhesives used shall not exceed 0.015 lb/gal (less water and exempt compounds). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The permittee shall keep daily records of the date and total amount of the corrugated boards produced in million square feet. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The permittee shall maintain monthly records of the name, type, VOC content (in lb/gal, less water and exempt compounds), and the amount of all adhesives, primers, solvents, and cleaning materials used in this operation. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The permittee shall keep monthly records of the total VOC emissions from this permit unit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All records shall be retained on-site for a minimum of five years and shall be made available to the District, ARB, and EPA upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

Appendix B

Current Permit to Operate

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: N-3606-31-1 **EXPIRATION DATE:** 04/30/2019

EQUIPMENT DESCRIPTION:
CORRUGATED BOARD MANUFACTURING OPERATION WITH A FOSBER SMART 400-98' CORRUGATOR SYSTEM AND A STARCH CONVEYING AND MIXING SYSTEM

PERMIT UNIT REQUIREMENTS

1. VOC emissions from the corrugator shall not exceed 8 pounds per million square feet of corrugated boards produced. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No more than 5 million square feet of corrugated board shall be processed in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emissions from this permit unit shall not exceed 9,699 pounds in any 12 consecutive month rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC content of the adhesives used shall not exceed 0.015 lb/gal (less water and exempt compounds). [District Rule 2201] Federally Enforceable Through Title V Permit
5. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Rule 4607. [District Rule 4607] Federally Enforceable Through Title V Permit
6. For a permittee using any solvent containing more than 25 g/L of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607] Federally Enforceable Through Title V Permit
7. For a permittee using any solvent containing more than 25 g/L of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607] Federally Enforceable Through Title V Permit
8. For a permittee using any solvent containing more than 25 g/L of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607] Federally Enforceable Through Title V Permit
10. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607] Federally Enforceable Through Title V Permit
11. The permittee shall keep records of the date and total amount of the corrugated boards produced in million square feet. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The permittee shall maintain monthly records of the name, type,VOC content (in lb/gal, less water and exempt compounds), and the amount of all adhesives, primers, solvents, and cleaning materials used in this operation. [District Rule 4607] Federally Enforceable Through Title V Permit
13. The permittee shall keep monthly records of the total VOC emissions from this permit unit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All records shall be retained on-site for a minimum of five years and shall be made available to the District, ARB, and EPA upon request. [District Rules 1070 and 4607] Federally Enforceable Through Title V Permit

Appendix C

Title V Modification – Compliance Certification Form

San Joaquin Valley
Unified Air Pollution Control District

HEALTHY AIR LIVING.

TITLE V MODIFICATION- COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[ ] SIGNIFICANT PERMIT MODIFICATION
[X] MINOR PERMIT MODIFICATION
[ ] ADMINISTRATIVE AMENDMENT

COMPANY NAME: **Pacific Southwest Container L.L.C.** FACILITY ID: **N-3606**
1. Type of Organization:[X] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [ ] Utility
2. Owner's Name: **Pacific Southwest Container L.L.C.**
3. Agent to the Owner: **"Mac" McCullough**

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

(YM) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

(YM) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

(YM) Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

(YM) Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Signature of Responsible Official — Date: Sept 3rd, 2014

"Mac" McCullough
Name of Responsible Official (please print)

Sr. Vice President- Quality & Environmental Management
Title of Responsible Official (please print)

Appendix D

BACT Guidelines and BACT Analysis

Best Available Control Technology (BACT) Guideline 4.9.13
Last Update: 4/16/2013

Corrugator

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Steam Conditioning of Paper - 8 lb-VOC/10^6 sq ft Adhesives - 0.015 lb-VOC/gal (less water and exempt compounds)	1. VOC Capture and Thermal/Catalytic Incineration 2. VOC Capture and Carbon Adsorption	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

This is a Summary Page for this Class of Source. For background information, see Permit Specific BACT Determinations on Details Page.

Top Down BACT Analysis

Corrugator

BACT is required for VOC emissions.

Step 1 – Identify all control technologies

The following control technologies have been identified for corrugators.

1) VOC Capture and Thermal/Catalytic Oxidation
2) VOC Capture and Carbon Adsorption
3) Steam conditioning of paper – 8 lb-VOC/10^6 sf; Adhesives – 0.015 lb-VOC/gal (less water and exempt compounds)

Step 2 – Eliminate Technologically Infeasible Options

None of the above listed options are technologically infeasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

Rank	Control Technology	Control Efficiency	Achieved in Practice
1	VOC Capture and Thermal/Catalytic Oxidizer	98%	N
2	VOC Capture and Carbon Adsorption	95%	N
3	Steam conditioning of paper – 8 lb-VOC/10^6 sf; Adhesives – 0.015 lb-VOC/gal (less water and exempt compounds)	Baseline	Y

Step 4 - Cost Effectiveness Analysis

Pursuant to Section IX.D of District Policy APR 1305 – BACT Policy, a cost effectiveness analysis is required for the options that have not been determined to be achieved in practice. In accordance with the District's Revised BACT Cost Effectiveness Thresholds Memo (5/14/08), to determine the cost effectiveness of particular technologically feasible control options or alternate equipment options, the amount of emissions resulting from each option will be quantified and compared to the District Standard Emissions allowed by the District Rule that is applicable to the particular unit. The emission reductions will be equal to the difference between the District Standard Emissions and the emissions resulting from the particular option being evaluated.

Option 1: Capture of VOCs and regenerative thermal/thermal or catalytic oxidation (Technologically Feasible)

The original project assumed the capture and control of the emissions from the corrugated box gluer would require an enclosure the size of a truck paint booth. The required air flow rate of such a paint booth would be approximately 14,000 cfm.

Capital Cost

Per Rick Cooley of Oxidation Technology, the cost of an RTO would be $328,140 (2011 dollars) not including sales tax, freight expenses, operational and maintenance costs, site preparation, etc.

Regenerative Thermal Oxidizer Capital Cost = $328,140 (2011 dollars)

Regenerative Thermal/Thermal or Catalytic Oxidation	
Cost Description	Cost ($)
Regenerative Thermal Oxidizer cost (2011 dollars)	$328,140
Adjusting factor from 2011 dollars to 2014 dollars (2.75% inflation/year)	1.0825
Inflation adjusted Regenerative Thermal Oxidizer cost	$355,212
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Regenerative Thermal Oxidizer System) See Above	$355,212
Instrumentation 10%	$35,521
Sales Tax 3%	$10,656
Freight 5%	$17,761
Purchased equipment cost	**$419,150**
Foundations & supports 8%	$33,532
Handling & erection 14%	$58,681
Electrical 4%	$16,766
Piping 2%	$8,383
Painting 1%	$4,192
Insulation 1%	$4,192
Direct installation costs	**$125,746**
Total Direct Costs	**$544,896**
Indirect Costs (IC)	
Engineering 10%	$41,915
Construction and field expenses 5%	$20,958
Contractor fees 10%	$41,915
Start-up 2%	$8,383
Performance test 1%	$4,192
Contingencies 3%	$12,575
Total Indirect Costs	**$129,938**
Total Capital Cost (DC + IC)	**$674,834**

Annualized Capital Cost

Pursuant to District Policy APR 1305, section X (11/09/99), the capital cost for the purchase of the equipment will be spread over the expected life of the system using the capital recovery equation. The expected life of the entire system will be estimated at 10 years. A 10% interest rate is assumed in the equation and the assumption will be made that the equipment has no salvage value at the end of the ten-year cycle.

$$A = [P \times i(I+1)^n]/[(I+1)^n-1]$$

Where: A = Annual Cost
P = Present Value
I = Interest Rate (10%)
N = Equipment Life (10 years)

$$A = \$674,938 \times [0.1(1.1)^{10}]/[(1.1)^{10}-1]$$
$$= \mathbf{\$110,053/year}$$

Emission Reduction

The annual potential VOC emissions are limited to 9,699 lb/year. Conservatively assuming 100% capture and 98% control,

Emission Reduction = 9,699 lb-VOC/year x 0.98 x ton/2,000 lb
= 4.75 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = $110,053/year ÷ 4.75 tons-VOC/year
= $23,169/ton-VOC

The analysis demonstrates that the annualized capital cost of the regenerative thermal/thermal and catalytic oxidizer system results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. The actual cost is expected to be considerably more taking into account the costs of a permanent total enclosure and annual operating costs. Therefore, this option is not cost effective and is being removed from consideration.

Option 2: Capture of VOCs and carbon adsorption (Technologically Feasible)

Carbon adsorption occurs when air containing VOCs are blown through a carbon unit and the VOCs are adsorbed onto the surface of the cracks in the activated carbon particles. Assuming a working bed capacity of 20% for carbon (weight of vapor per weight of carbon) and a VOC control efficiency of 95%, the total amount of carbon required can be determined as follows:

Carbon required = 9,699 lb-VOC/year x 0.95 x 1/0.20
= 46,070 lb-carbon/year

Kurt Keefer of EAS Corp recently quoted a carbon disposal replacement cost range of $2/lb to $10/lb (see project N-1110320). The $2/lb disposal replacement cost will be used to be conservative.

Annual Carbon Cost = 46,070 lb-carbon/year x $2/lb-carbon = $92,140/year

Emission Reductions

Annual Emission Reduction = 9,699 lb-VOC/year x 0.95 x ton/2,000 lb
= 4.6 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = $92,140/year ÷ 4.6 tons-VOC/year
= $20,030/ton-VOC

The analysis demonstrates that the annual carbon cost alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. The actual cost is expected to be considerably more taking into account the costs of a permanent total enclosure and carbon adsorption equipment capital costs. Therefore, this option is not cost-effective and will not be considered for this project.

Option 3: Steam conditioning of paper – 8 lb-VOC/106 sf and Adhesives – 0.015 lb-VOC/gal (less water and exempt compounds)

The applicant is proposing option 3 so a cost-effective analysis is not required.

Step 5 - Select BACT

The controls with the highest control efficiency are not cost effective options. Therefore, the use of steam conditioning of paper – 8 lb-VOC/106 sf and Adhesives – 0.015 lb-VOC/gal (less water and exempt compounds) is selected as BACT for this project.

Appendix E

Health Risk Assessment Analysis

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	George Heinen – Permit Services
From:	KouThao – Technical Services
Date:	October 29, 2014
Facility Name:	Pacific SW Container
Location:	4530 Leckron Rd Modesto, CA 95353
Application #(s):	N-3606-31-2
Project #:	N-1142841

A. RMR SUMMARY

RMR Summary			
Categories	**Corrugator (Unit 31-2)**	**Project Totals**	**Facility Totals**
Prioritization Score	**0.00***	0.00*	0.00
Acute Hazard Index	N/A	N/A	N/A
Chronic Hazard Index	N/A	N/A	N/A
Maximum Individual Cancer Risk	N/A	N/A	N/A
T-BACT Required?	**No**		
Special Permit Conditions?	**No**		

*A prioritization was not performed after determining no Hazardous Air Pollutants (HAPs) are associated with this project. No further analysis was required.

I. Project Description

Technical Services received a request on October 10, 2014 to perform a Risk Management Review for the modification of an existing corrugated board manufacturing operation. The modification consist of increasing the corrugated board throughput from 5 million SF to 8 million SF.

II. Analysis

Per the Districts permitting engineer, the only emissions associated to permit unit 31-2 are VOCs. After reviewing the information provided in the Risk Management Review request along with MSDS sheets for the proposed coating products, Technical Services determined that there are no HAPs associated with this project. Therefore, no further analysis or prioritization was required for this project.

III. Conclusion

The proposed project will not contribute to the facility's risk. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.